

New Almaden Mine
Almaden, California

HABS No. CAL-1-14

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PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA
District of Northern California

Historic American Buildings Survey
Irving Morrow, District Officer
Wm. H. Knowles, Dep. Dist. Officer
369 Pine St., San Francisco, Calif.

(NEW) ALMADEN MINE
Almaden, Santa Clara County, California

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Owner or Custodian: David Black, Lessor, G. E. Watson, Custodian, Almaden (ownership uncertain).

Date of Erection: 1845-1900 (original date unknown).

Architect: Unknown.

Builder: Unknown.

Present Condition: Poor.

Number of Stories: One.

Materials of Construction: Stone, adobe, brick, wood frame and finish, sheet metal.

Other Existing Records: The History of San Jose, Frederic Hall, Bancroft & Co., 1871. Views of New Almaden (45 mounted photographs), Stanford Library, Stanford University. Numerous Court Opinions and Documents in the Libraries of the University of California and Stanford University.

Additional Data: The New Almaden Mine was named after the ancient and immensely rich Spanish Mine, the Almaden situated in the province of La Mancha about four hundred miles from the southern coast of Spain. The name was compounded from the Arabic prefix al (the) and the noun maden (mine). Pliny observes that the ancient Greeks obtained vermilion for decorative purposes from the cinnabar produced by this mine.

The new Almaden is situated on Alamitos Creek about thirteen miles southwesterly from San Jose, California, the head of the

Additional Data: (Cont.)

main shaft being about one thousand feet above the glen in which the town of Almaden is located. The exact date of discovery is unknown, however, the Indians are said to have used the cinnabar reduced to pigment for their war paint and other decorations long before civilized man became acquainted with it in 1824. At this period the Robles family and Luis Chabolla were informed of its existence and supposing that it contained silver worked it for about a year and abandoned it. It remained inactive until 1845 when one, ~~one~~ Andres Castillero, from Mexico, upon experimenting with the ore determined it to be a quick-silver mine and claiming right of discovery attempted to denounce it under Spanish and Mexican laws filing a claim with the alcalde of San Jose, there being no Judge of the First Instance available. He founded a company and employed William Chard, an American, to construct furnaces which proved un-serviceable and were abandoned in 1846.

In 1847 Castillero sold certain shares to an English mining concern operating in Mexico, which immediately sent representatives to take possession. They erected retorts and worked the mine with great success until 1850 when furnaces to increase production were erected. A thriving town called Hacienda, now Almaden, grew up near it and at the height of its prosperity its production exceeded that of the original Almaden mine in Spain. The ownership of the mine has been the subject of prolonged litigation, it being claimed by four different parties under different sources of title, namely the Justo Larias grant, the Jose Berriessa grant, the title of denouncement by

Additional Data:

Castillero, and by the United States as being on public land. An injunction was laid upon the mine from 1858 until it was dissolved in 1861. It was sold by the holding company in 1864 to a New York Company and worked by them until about 1868.

A portion of it is still being worked by the lessor.

Author: Clarence P. Ward

Approved: Wm. J. Kunkles
Deputy District Officer

Approved: _____
District Officer

DW 9/5/37

New Almaden Quicksilver Mine
(Almaden Mine, Office and Shop Buildings)
Almaden Road, New Almaden Quicksilver Mine
County Park
New Almaden
Santa Clara County
California

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Adendum to

Almaden Mine, Office and Shop Buildings
Almaden
Santa Clara County
California
in HABS Catalog (1941)

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Architectural and Engineering Record
National Park Service
Department of the Interior
Washington, D. C. 20043

HISTORIC AMERICAN BUILDINGS SURVEY

HABS No. CA-114

NEW ALMADEN QUICKSILVER MINE
(Almaden Mine, Office and Shop Buildings)

Location: Almaden Road, New Almaden Quicksilver Mine County Park, New Almaden, Santa Clara County, California.

USGS Santa Teresa Hills Quadrangle, Universal Transverse
Mercator Coordinates: 10.602770.4115220

Present Owners: County of Santa Clara; Harry and June Fromm; Constance Perham.

Present Use: Park.

Significance: The New Almaden mine is the site of the first mercury deposit discovered on the American continent and has yielded metal of greater value than that of any other mine in the State, producing nearly one-third of the country's supply of mercury. The ore deposit was discovered in 1824 but not recognized as a mercury deposit until 1846. At that time, the town was re-named New Almaden after the Almaden mine in Spain, the world's greatest mercury producer. Until the discovery of the cyanide process in 1887, quicksilver was the chief reduction agent used in processing gold and silver. The metal extracted from the New Almaden mine thus made possible the rapid development of gold and silver quartz mining in California and the Comstock Lode in Nevada during the 1850s and 1860s. Since then, production has fluctuated with the opening and exhausting of ore deposits. In 1927 mining activity was terminated for the first time since 1849. Mining was resumed during World War II. The mine is inactive today. A few of the 1850s wooden and adobe structures, offices, mine structures and old furnace buildings remain. The site became a National Historic Landmark in 1964 and part of Santa Clara County's park district in 1975.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of claim: The site was first mined in 1824 by Antonio Sunol and Luis Chabolla, who thought the bright globules of mercury were silver. They spent a year trying to extract the mineral without success.
2. Original and subsequent owners: The majority of the original 8500-acre tract lies within the New Almaden Quicksilver Mine County Park, parcels 1, 2, and 9 as shown on the Parcel map filed in the County Recorder's Office on June 18, 1973, in Book 325, pages 1-9. Additional outbuildings are located along Almaden Road, described as Lake Almaden Properties in Map Book W, pages 34-35, filed in the Office of the Recorder, Santa Clara County Courthouse, Santa Clara, on February 21, 1928.

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- 1845 Court Order, November 22, 1845, recorded on December 30, 1845, in U. S. vs. Castellero, San Francisco, California, 1859-1860, U. l., pages 75-76. The Mexican Government, represented by Alcalde Pico of San Jose, granted title to the property to Andreas Castellero and Jose Berreyesa.
- 1845 Castellero formed a partnership with General Jose Castro, Secundio and Teodoro Robles, and Padre Real of the Mission San Jose.
- 1846-1850 Castellero and Castro, et al, sold the property in many small parcels to the Barron, Forbes Company during these four years.
- 1863 The Supreme Court denied the Barron, Forbes Company, an English-owned company, claim to the title but permitted the company to operate the mine under a lease from the government.
- 1863 Lis pendens, August 1863, recorded April 1864. By order of the U. S. Supreme Court, Barron, Forbes Company sold the property to the Quicksilver Mining Company of Pennsylvania for \$1,750,000.
- 1866 Legal action, reorganization of the Quicksilver Mining Company of Pennsylvania to the Quicksilver Mining Company of New York.
- 1915 Deed, the Quicksilver Mining Company sold the property to George Sexton; the name of the site was changed to the New Idria Quicksilver Mining Company.
- 1925 By mortgage foreclosure, recorded in Map Book W, pages 34-35. The property was transferred to Lake Almaden Properties Company, Thomas Coch acting as agent for the California Title Company.
- 1975 Deed, June 20, 1975, recorded in Book B473, page 244. New Idria Mining and Chemical Company sold the property to Santa Clara County.
3. Original plan and construction: No plans of the original buildings prior to 1847 are known to exist.
4. Alterations and additions:
- a. Barron, Forbes Company, 1847-1864: All the early significant development was completed by the second owners, an English firm based in Tepic, Mexico. J. Alexander Forbes, with Superintendents John Young and Robert Walkinshaw, arrived in the fall of 1847 with a crew of Mexican laborers to begin the initial construction. (Lanyon, 9-11) The Hacienda de Beneficio, the reduction furnaces facility, was erected on the north bank of Los Alamitos creek. Because of their primitive nature, these furnaces were replaced in 1850 by a brick and cement furnace designed by Henry W. Halleck and Young. (Christy, 5; Lanyon, 13) Thirteen of these furnaces

were in full operation by 1854, described by Mrs. S.A. Downer in an essay which appeared in 1854 in the California Monthly Magazine.

As we approach the hacienda, we are again reminded that it was built for time. The warehouses are of substantial brick structures, standing within a wall and on a line with the gate or main entrance. These buildings with the furnaces, blacksmith shop and an open space for the manufacture of adobes are all within the enclosure, and occupy a space of several acres. . . . The thirteen operative furnaces are of solid masonry, under cover, with open raised roofs to admit free escape of noxious gases and are in rows six feet apart forty feet long eight feet wide and ten feet high. (They are fired by) wood fuel (costing) six dollars a cord. A uniform but not very high temperature is required. (The fire is made) in the first compartment at one end; (there are) numerous conductors for the heat to pass through the furnace in which ore is placed. This receptacle is four feet wide, six feet long, and five feet high and contains 15,000 lbs. ore or 12,000 lbs. adobe. Each furnace required twelve to fourteen condensers, and has numerous vapor chambers. The vapor passes through a wooden cistern ten feet long by four feet wide by two feet deep. It is half filled with water when the smoke passes over and coal on its way to wooden chimneys with separate condensers. The time for one extraction of quicksilver is fifty-six from solid ore, fifty from adobes. Quicksilver is piped from condensers to iron vats, ladeled into scales, put into seventy-five pound iron flasks, one and a half feet long, eight inches in diameter, and one quarter inch thick . . . The furnaces are filled at the top, the ore and adobes hand placed. (Downer, 225)

During this period, the ore was extracted by Mexican laborers - mineros - who, using picks and crowbars, burrowed down through hard rock. A second group - tanateros - carried loads of ore averaging one - to two-hundred pounds in leather bags strapped over their shoulders and heads, climbing ten to twenty feet to the surface. (Lanyon, 12).

When the shallow mines were exhausted ca. 1850, Halleck had the 807-foot Mine Hill Tunnel constructed, which became the Main Tunnel. In the construction of the tunnel, explosive blasting replaced manual digging and a steam-powered hoist replaced the tanateros. The arched, ten-foot opening was supported by red-wood timbers at two-foot intervals, and accomodated double rail tracks for the ore cars.

The Mine Hill Store was erected in 1852-53. The one-and-a-half story structure measured 20'-2" across the front by 66'-6" deep. Iron tie rods had to be installed during the mid-1850s to stop the long side walls from spreading, due to damage incurred from the earthquakes between 1852 and 1855. The front and side walls were constructed of thirteen-inch brick, and the rear retaining wall was of sixteen-inch adobe. Two ten-foot high chambers with lath and plaster ceilings filled the interior's first floor, and a half-story with an exposed ceiling was on the upper level. A wide veranda was eventually added to the front and southeast (side) walls.

A new drainage tunnel was started in 1857 under the supervision of Sherman Day, a Yale-educated civil engineer who later became an original trustee of the University of California. (Brewer, 167; Lanyon, 15) The "Day Tunnell" was completed in the 1860s, and the American shaft - the Bull Run - was sunk in 1863, following the work stoppage of that year ordered concerning title to the mine. (Lanyon, 15) In 1864 the general store was erected. It was constructed of brick with a veranda, and stepped parapets on the gable ends. (Johnson, 95)

- b. Quicksilver Mining Company, 1865-1915: "Permanent improvements" were begun in 1865 which included the erection of 405 buildings - furnaces, dwelling houses, workshops and stores - completed at a cost of \$170,000. (Browne, 549) The houses that were located in the Hacienda area were small workers' cottages for the miners and foremen and their families. Additional small frame cottages stood on the low ridges above the Hacienda area, known as "Spanishtown." (Lanyon, 9)

In addition to these structures, other public buildings were erected around the camp ca. 1885. A Catholic Church was built in the Mexican camp of "Spanishtown," funded by community donations and company aid. (Lanyon, 58) A preparatory school for Mexican children, a schoolhouse and recreation hall at the Hacienda, a Methodist Episcopal Church in "Englishtown," and a mine office on Mine Hill were all constructed during this period. (Innis, "Harry," 12; "A Contested Election," 20-57; Lanyon, 75)

B. Historical Events and Persons Connected with the Site:

New Almaden was the first and became the richest quicksilver mining community in North America during the mid-nineteenth century. It was originally a part of Jose Reyes Berryeyesa's Rancho San Vicente, one of the Santa Clara Valley's large ranchos settled after 1777. The ore deposit was discovered in 1824, but was acquired by the English-controlled Barron, Forbes Company. The town was renamed New Almaden in 1847 after the rich

quicksilver mines in Almaden, Spain. Little development had occurred along the Alamitos Creek site prior to the Barron, Forbes transaction and in 1850 the company installed more efficient reduction facilities at the base of the mine hills.

During the early 1860s the New Almaden Mining Company petitioned the U.S. Government for title to the property. Because the company was largely owned by English interests, the Supreme Court in 1863 denied claim to title, but permitted the company to operate the mine under a lease from the government. Forbes sold its holdings in August 1863 to the Quicksilver Mining Company of Pennsylvania for \$1,750,000.

C. Sources of Information:

1. Primary and unpublished sources:

a. Old Views:

1. A plat of the Quicksilver Mining Company holdings in 1879 drawn by Hennen Jennings was included in Samuel B. Christy's 1885 account of the "Quicksilver Reduction at New Almaden."
2. A plat based on historical locations of sites on Mine Hill drawn in 1952 by P.V. "Jimmie" Schneider was copyrighted in 1975 by the New Almaden Museum.

b. Photographs - all areas:

All of the following, as well as dozens of other historic photographs of the Mine area, are in the possession of Mrs. Constance B. Perham, New Almaden Museum. Others are at the San Jose Historical Museum and Stanford University (See Section C. below)

1. Interior View of Randol shaft ca. 1885. HABS photocopied.
2. View looking northeast of Hacienda area with Mining Company Office (destroyed) in right foreground, reduction furnaces middleground - ca. 1885. HABS Photocopied stereograph.
3. View of Huttner-Scott type tierra #5 furnace before extension, June 1878. HABS Photocopied "Randol collection."
4. Stereograph interior view of Santa Isabel shaft pumping equipment, 1878. HABS Photocopied from "Randol collection."
5. Interior view of Buena Vista Hoisting engine ca. 1885
- HABS Photocopied from the "Innis Collection."

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6. Sterograph View of Spanishtown March 1876. HABS Photocopied from "Randol Collection."
 7. View looking east from Mine Hill schoolyard showing English-town settlement with Mine Hill Store in right middleground and Episcopal Church in center background ca. 1886. HABS Photocopied.
- c. Manuscripts, record books, annual reports etc:
- + denotes material at New Almaden Museum
21570 Almaden Road
New Almaden, CA.
 - ++ denotes material at San Jose Historical Museum
635 Phelan Avenue
San Jose, CA.
 - * denotes material in New Almaden Collection
Box 270 Bender Room
Stanford University
Palo Alto, CA.
- d. Theses:
- Beach, Frank L. "James Alexander Forbes (1804-1881)
British Vice Consul in California 1842-1850"
- University of San Francisco 1957 - noted in Schneider research
notes see below.
- Brown, Donald Charles "The New Almaden Quicksilver Mines
1824 - 1890" Master's Thesis San Jose State College
February 1978.
- Johnston, Marc W. "Faith in our Victims: The Litigation of
Mexican Land Grants in California after the American
Accession: A case study of the New Almaden Claims."
BA Honors thesis Harvard College March 18, 1974.
- e. Papers:
- Arbuckle, Clyde. "Five Facts on the New Almaden Quicksilver
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"Captain James Harry's Administration of the New Mines." +

"J.B. Randal's Administration of the New Almaden Mines." +

McMurray, George. Papers and photo albums in Schneider segment
of New Almaden Collection, Box 270.*

Schneider, P.V. Jimmie research notes on Forbes and Mine
Operations in New Almaden Collection, Box 270.*

f. Record Books Correspondence:

Company correspondence 1866 - 1912 containing managers'
letters, New Almaden Collection, Box 270.*

Credit records, Miscellaneous 1880's New Almaden Collection,
Box 270.*

Payroll records misc. 1866 - 1906, New Almaden Museum Collection. +

Surface Foreman's work order Book 1882 - 1883, New Almaden
Collection, Box 270.*

Toll Receipts 1843 - 1877, New Almaden Collection, Box 270.*

Transcript of Manager's letterbook January 6, 1864-October 8,
1866, New Almaden Museum Collection. +

g. Reports:

Pace, Pauline ed. "Santa Clara County Resource Inventory"
San Jose, CA. (County Commissioners), October 1975.

Ankett, Harold T. "Preliminary Inventory No. 11, "National
Archives, Washington, D.C. 1948.

Quicksilver Mining Co. Charter and By-laws 1866, New Almaden
Museum Collection. +

Quicksilver Mining Co. Annual Report, 1865 - 1912
(scattered volumes), all collections. + + + *

Rose R. Burton "Heritage Archive of the Famous New Almaden
Mercury Mine," 1973, New Almaden Museum Collection. +

h. Deed Books and Parcel Maps:

County Records Office 70 West Redding St. San Jose, CA.

Interviews:

8/20-25/1977 with Mrs. Constance Perham, age 69, resident of New Almaden since 1925 and curatrice of New Almaden Museum concerning recent history, at 21570 Almaden Road, New Almaden, CA.

2. Secondary and published sources:

Anonymous A Contested Election in California reprinted San Jose Daily Mercury, 1887.++

Anonymous, "Bank of California Opened July 5, 1864" The Pony Express Placerville, CA., vol. 21, no. 2, #242 (July 1954) pp. 1.+

Anonymous, "Darius O. Mills" The Pony Express Placerville, CA. vol. 20, no. 5, #233 (October 1953) pp.6-7.+

Anonymous, "James Alexander Forbes" California Historical Quarterly, (June 1931).

Anonymous, "Quicksilver Resources of California" (2nd ed.) Bulletin #27, (Jan. 1908) Sacramento, California State Mining Bureau, 1908.

Anonymous, Sunshine Fruit and Flowers, San Jose: San Jose Mercury Publishing and Printing Co., 1895.

Anonymous, "Thomas Bell" The Pony Express, Placerville, CA., vol. 20, no. 5 #533 (October 1953), p.7.+

Anonymous, "William Ralston" The Pony Express, Placerville, CA. vol. 20, no. 5 #233 (October 1953), p.7.+

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Yale University Press, 1931, pp. 157-166.*

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Magazine, vol. 31, no. 185 (October 1865), pp. 545-560.*

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Buildings 1792-1920, San Jose: Junior League of San Jose Inc.

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Transactions of the American Institute of Mining Engineers,
vol. 23 (See appendix), Philadelphia, Sherman and Co.
1885.++

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noted in Schneider research notes - see above.

Cunningham, Florence, Saratoga's First Hundred Years,
San Jose: Harlan Young Press, 1967.

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or California Monthly Magazine, vol. 2 , no 4 (October 1854),
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Egenhoff, Elizabeth L., "The Cornish Pump" Mineral Information
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(August 1967), pp.91-103.+

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Los Gatos, CA: Village Printers for Lanyon and Bulmore, 1967.

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Survey Report of Mineral Resources of U.S. 1917 Part 1,
Washington, D.C.: Government Printing Office.+

Sawyer, Eugene T., History of Santa Clara County Los Angeles:
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The Pony Express, Placerville, CA., vol 16, no 5, #185 (October
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Shutes, Milton H., "Abraham Lincoln and the Almaden Mine"
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Rouge LA.: Louisiana State University Press, 1964, pp. 195-197.

Prepared by: Carolyn Hamm
Project Historian
National Park Service
August 1977

PART II. PROJECT INFORMATION

This project was undertaken by the Historic American Buildings Survey in cooperation with the County of Santa Clara. The 1977 summer project, the first year of a four-year recording project in Santa Clara County, was completed under the general direction of John Poppeliers, Chief of HABS; Kenneth L. Anderson, Jr., Principal Architect; and Robert Brueggmann, Project Supervisor (University of Pennsylvania); with Jack Schafer, Architectural Foreman (University of Cincinnati); and Carolyn Hamm, Historian (Duke University). The historical data were edited and in some cases further researched during the summer of 1979 by Jan Cigliano, an architectural historian on the HABS staff, at the 1979 Field Office in Santa Clara, California, and by Denys Peter Myers, HABS Architectural Historian at the HABS Washington Office in 1981.